

REMARKS

Claims 1 and 3 have been amended. Claims 4 and 5 have been canceled. Claims 10-17 were withdrawn previously. New claim 18 has been added. Claims 1, 3, 7-17, and 18 are thus pending in the application.

Interview Summary

Applicant would like to thank the Examiner for the telephone interview that was conducted on April 1, 2008. In the interview, Applicant's counsel discussed the rejections of claim 1 under 35 U.S.C. §§ 112 and 101 with Supervisory Examiner Charles Rones and Examiner Alicia Lewis. In the interview, Applicant's counsel reached agreement with Mr. Rones and Ms. Lewis that amending claim 1 to recite "configured to" in connection with each of the context engine, the read engine, and the write engine would adequately address both the § 112 and the § 101 rejections.

Claim Rejections Under 35 U.S.C. § 112

The Office Action rejects claims 1, 3-5, and 7-9 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Office Action complains that the language "a context engine to," a read engine to," and "a write engine to" renders the claim indefinite because the claim allegedly covers "anything and everything that does not prohibit actions from occurring."

Applicant disagrees with the assertion that claim 1 covers "anything and everything that does not prohibit actions from occurring." Nevertheless, to advance prosecution and in accordance with the discussion in the April 1 interview, Applicant has amended claim 1 to recite

“a context engine *configured to read . . .*,” “a read engine *configured to read . . .*,” and “a write engine *configured to write . . .*” (emphasis added). Similar language has also been employed in new claim 18. Withdrawal of the rejection under § 112, second paragraph, of claims 1, 3, and 7-9 is respectfully requested.

Claim Rejections Under 35 U.S.C. § 101

The Office Action rejects claim 1, 3-5, and 7-9 under 35 U.S.C. § 101 because the claimed invention allegedly “lacks patentable utility.” Specifically, the Office Action asserts that “[c]laim 1 does not recite any code or steps for causing the engines to do anything, but instead just includes engines ‘to’ perform the suggested functions.” Applicant disagrees with these rejections. First, there is no requirement under U.S. patent law that an apparatus claim recite “code or steps.” Structure and/or function and the interrelationship among the recited elements are sufficient. Second, though Applicant disagrees with these rejections, claim 1 has been amended in a manner that, according to the Examiner and Mr. Charles Rones in the April 1 interview, adequately addresses the concerns expressed in the Office Action with regard to both § 112, second paragraph, and § 101. Withdrawal of the rejection of claims 1, 3, and 7-9 under § 101 is respectfully requested.

Claim Rejections Under 35 U.S.C. §§ 102 and 103

The Office Action rejects claims 1 and 7 under 35 U.S.C. § 102(b) as being anticipated by Goldberg et al. (U.S. Patent No. 5,201,046, hereinafter “Goldberg”); rejects claims 3-5 under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of Henderson et al. (U.S. Patent No. 6,362,993, hereinafter “Henderson”); rejects claim 8 under § 103(a) as being unpatentable over Goldberg in view of Upton (U.S. Patent 7,080,092, hereinafter “Upton”); and rejects claim 9 under § 103(a) as being unpatentable over Goldberg in view of Nakamura et al. (U.S. Patent

Application Publication No. 2006/0064449 A1, hereinafter “Nakamura”). Applicant respectfully disagrees with these rejections because independent claim 1, as currently amended, recites limitations that are not taught or suggested by any of the applied references, whether taken separately or in combination.

Claim 1. Currently amended independent claim 1 recites several limitations that are not taught or suggested in any of the applied references. For example, claim 1 recites, among other things, the limitation “wherein the read engine operates by reading data from a location in memory and comparing the contents of the memory location with a search object, the read engine using differential bits between the contents of the memory location and the search object to locate subsequent memory locations in the database.” The Office Action had asserted, in connection with now-canceled claim 4, that this limitation is met by Henderson at col. 6, line 60, through col. 7, line 24; col. 18, lines 14-26; and col. 16, line 60, through col. 17, line 13. This is incorrect, however, because Henderson does not teach that differential bits are used “to locate *subsequent* memory locations in the database” as recited in claim 1 (emphasis added). Rather, Henderson merely discloses a straightforward comparison of the bits in a value stored in a cell of the content-addressable memory (CAM) with a value input to a set of differential bit lines. If an exact match between the bits is found, compare cell 58 outputs a “high” signal. Such a procedure does not “locate subsequent memory locations in the database,” as recited in currently amended claim 1.

Currently amended claim 1 also recites the limitation “wherein the graph engine is implemented entirely in hardware.” This limitation is not taught or suggested in any of the applied references for at least the reason that the applied references, whether taken separately or

in combination, do not each or suggest a graph engine that meets the other limitations recited in claim 1, let alone one implemented entirely in hardware.

Currently amended claim 1 also recites the limitation “wherein the entire database resides in one of random-access memory and flash memory.” This limitation is also not taught or suggested in any of the applied references. For example, Goldberg teaches that “the data in the database is typically stored *partially* in high-speed random access memory (RAM) and partially on disk drives” (Goldberg, col. 8, lines 58-60; emphasis added).

Because the applied references do not, separately or in combination, teach or suggest each and every limitation recited in currently amended claim 1, Applicant believes this claim to be allowable. Each of claims 3 and 7-9 is thus also allowable at least by virtue of its depending from allowable claim 1. Withdrawal of the rejections of claims 1, 3, and 7-9 under §§ 102 and 103 is respectfully requested.

New Claim 18. New claim 18 also recites several limitations that are neither taught nor suggested by the applied references, whether taken separately or in combination. In addition to some of the limitations discussed above in connection with currently amended claim 1, claim 18 also recites the limitations “wherein the write engine operates by identifying a first differential bit between the contents of a memory location in the database and a search object” and “wherein the write engine is configured to create a new entry in the database by writing information beginning at the location of the first differential bit,” which are similar to now-canceled claim 5.

In connection with now-canceled claim 5, the Office Action had asserted that the above limitations are met by Goldberg at col. 15, lines 20-32; col. 16, line 30, through col. 17, line 15; as modified by Henderson at col. 2, lines 9-33; col. 5, lines 36-53; and col. 15, lines 14-28 and lines 52-62. Applicant respectfully disagrees because the cited portions of the Goldberg and

Henderson references do not teach or suggest “creat[ing] a new entry in the database by writing information *beginning at the location of the first differential bit*,” as recited in new claim 18 (emphasis added). There simply is no such teaching in either of these references (or any of the other references) concerning the recited placement of data written to the database.

Because the applied references do not, separately or in combination, teach or suggest each and every limitation recited in new claim 18, Applicant believes this claim to be allowable.

A Note Regarding the Current Claim Amendments

The current amendments of claims 1 and 3 and the addition of new claim 18 are amply supported by the specification and drawings of the application. No new matter has been introduced via the current claim amendments (see, e.g., paragraphs 0011, 0012, 0031, 0037-0038, and 0043-0044 and Figs. 3 and 4).

Request for Continued Examination

A Request for Continued Examination (RCE) under 37 CFR § 1.114 has been filed with this paper.

CONCLUSION

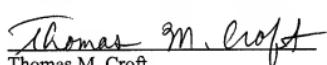
In view of the foregoing, Applicant respectfully submits that no further impediments exist to the allowance of this application and, therefore, requests an indication of allowability. However, the Examiner is requested to call the undersigned if any questions or comments arise.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1283.

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